

REMARKS

Claims 1-13, 28, 30 and 31 are pending in this application. By this Amendment, claims 1, 2, 6 and 30 are amended. Claims 14-27, 29, 32 and 33 are canceled without prejudice to, or disclaimer of, the subject matter therein.

On pages, 3-9, the Office Action rejects claims 1, 2, 4-8, 10, 14 and 30-33 under 35 U.S.C. §112, second paragraph, as being indefinite for the specified reasons. The Office Action requests that the Applicant point out where each of the limitations from the rejected claims specified in the Office Action are disclosed in the specification in Fig. 8. In response, Applicant provides the following comments.

Claims 14, 32 and 33 are canceled without prejudice to, or disclaimer of, the subject matter therein.

With regard to claim 1, a voltage source, amplifier 235 (Fig. 9), as shown in Fig. 8, a detection signal of an LD output is input into an inverting input of an amplifier 231, and V_{ref} is input into a non-inverting input of the amplifier 231. An output of the amplifier 231 is input to a variable resistance VR. A voltage divided by the variable resistance VR is input into an amplifier 232, and the amplified voltage V_{cont} is input into an inverting input of the amplifier 235. Accordingly, the amplifier 235 is a non-limited example of the voltage source recited in claim 1. Also, see further comments on claims 2 and 5, below.

With regard to a switching section, switch SWd (Fig. 9), the switch SWd is a non-limited example of the switching section recited in claim 1.

With regard to a drive end of a light emitting element, a drive end of any of LD 1-36, Fig. 8 shows a non-limited example where 36 channels (36 LDs) are provided. It is a matter of course that claim 1 should not be limited to a circuit configuration including just 36 channels as disclosed in the specification.

With regard to a resistance value, a resistance value from a node N1 to the drive end of LD, the Office Action appears to ignore that claim 1 recites, "a resistance value from an output end of the voltage source to a drive end of the light emitting element" (especially emphasized the portion).

With regard to an internal resistance value, an internal resistance value of LD, a person having an ordinary skill in the art knows (and would have known) that any light emitting element has its internal resistance. The Office Action rejects this limitation simply because the internal resistance of LD is not shown in Fig. 8. It is respectfully submitted that the Office Action's assertion is unreasonable.

An answer to the Office Action's question "what function will perform with respect to the existence elements and in general" is described in the specification at page 11, line 19 to page 12, line 19.

With respect to the limitation "a current flowing into the voltage source is smaller than a current flowing into the light emitting element," this subject matter is deleted from the claims.

Specific relevant elements include a capacitor C1d (recited in claim 3) and a current source 13. Also, the following expressions are established:

$$\begin{aligned} & \text{(a current flowing through the voltage source)} \\ & + \text{(a current flowing from the current source)} \\ & = \text{(a current flowing through the light emitting element)} \end{aligned} \quad (A)$$

$$\begin{aligned} & \text{(the current flowing through the voltage source)} \\ & + \text{(a current flowing from the capacitor C1d)} \\ & = \text{(the current flowing through the light emitting element)} \end{aligned} \quad (B)$$

From the expressions (A) and (B), it is obvious that "the current flowing into the voltage source" and "the current flowing into the light emitting element" result in a relation as recited in claim 1.

With regard to claim 2, a negative feedback loop, the amplifier 235 forms the negative feedback loop. An answer to the Office Action's question "what function will perform with respect to the existence elements and in general" is described in the specification at page 13, line 11 to page 14, line 2.

With regard to claims 2 and 5, a buffer amplifier, a circuit including the amplifier 235, current sources I1 and I2, switches SWp and SWn, it is noted that the voltage source recited in claim 1 and the buffer amplifier recited in claim 2 are not separate members. This is clarified by the amendment to claim 2.

With regard to claim 5, an input side retaining section, a capacitor Csh (Fig. 9), an answer to the Office Action's question "what function will perform with respect to the existence elements and in general" is described in the specification at page 15, line 10 to page 16, line 4.

With regard to claim 6, a first voltage source, a first voltage source 22, a voltage value Vbias of the voltage source 22 is less than a threshold voltage of laser oscillation of LD.

With regard to a second voltage source, the amplifier 235 (Fig. 9), see Applicant's comments on claim 1.

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 1, 2, 4-8, 10, 14 and 30-33 under 35 U.S.C. §112, second paragraph, be withdrawn.

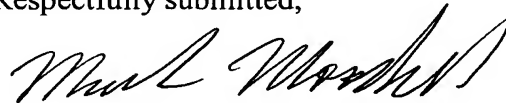
On pages 10-11, the Office Action rejects claims 14 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,510,168 to Kikuchi. This rejection is respectfully traversed at least for the reason that claim 14 is canceled without prejudice to, or disclaimer of, the

subject matter therein. For at least this reason, it is respectfully requested that the rejection of claim 14 as being anticipated by Kikuchi be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-13, 28, 30 and 31 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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